micro WASH WWCW

User Instructions

Unpacking: Thank you for purchasing the Micro Wash WWCW by American DJ®. Every Micro Wash WWCW has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit has arrived intact. In the case damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

Introduction: The American DJ® Micro Wash WWCW is part of a continuing pursuit to create high quality intelligent lighting. The Micro Wash WWCW is a DMX intelligent, high powered cool white/warm white LED par can. This fixture can be used in a stand alone mode or connected in a Master/Slave configuration. This unit has five operating modes: Sound Active mode, Macro mode, Auto mode, RGB mode, and DMX control mode.

Customer Support: American DJ provides a customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.AmericanDJ.com for any comments or suggestions. Service Hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Pacific Standard Time.

Voice:	(323) 582-3322
Fax:	(323) 582-3108
E-mail:	support@AmericanDJ.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact American DJ.

PLEASE recycle the shipping carton when ever possible.

Micro Wash WWCW General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

Micro Wash WWCW Features

- Warm White & Cool White
- Five Operating Modes
- Electronic Dimming 0-100%
- Built in Microphone
- DMX-512 protocol
- 3-Pin DMX Connection
- Two DMX Modes: 3 Channel Mode and 5 Channel Mode.

Micro Wash WWCW Warranty Registration

The Micro Wash WWCW carries a two year limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting our customer support team on our customer support number. All packages returned to the service department not displaying a R.A. number on the outside of the package will be returned to the shipper.

Micro Wash WWCW Safety Precautions

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product out` doors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the point they exit from the unit.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 12 for cleaning details.
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
  A. The power-supply cord or the plug has been damaged.
  B. Objects have fallen, or liquid has been spilled into the appliance.
  C. The appliance has been exposed to rain or water.
  D. The appliance does not appear to operate normally or exhibits a marked change in performance.

Power Supply: The American DJ Micro Wash WWCW contains a automatic voltage switch, which will auto sense the voltage when it is plugged into the power source. With this switch there is no need to worry about the correct power voltage, this unit can be plugged in anywhere.

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).

DMX Linking: DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Data Cable (DMX Cable) Requirements (For DMX Operation): The Micro Wash WWCW can be controlled via DMX-512 protocol. The Micro Wash WWCW has 2 DMX channel modes; a 3 channel mode and 5 channel mode. The DMX address is set on the back panel of the Micro Wash WWCW. Your unit and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all pro lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.

Figure 1

Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

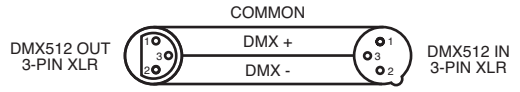
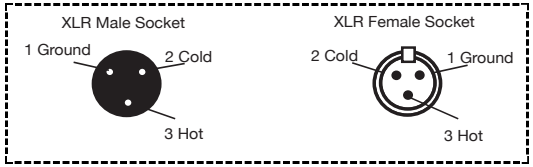


Figure 2



XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Data Compliment (negative)
Pin 3 = Data True (positive)

Figure 3

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the possibilities of erratic behavior.

Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 4

5-Pin XLR DMX Connectors. Some manufactures use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use

LED Display On/Off:

To set the LED display to turn off after 10 seconds, press the MODE button until 0001 is displayed, press the UP button to display 0002. Now the display will disappear after 10s. Press any button to turn the display on again. Be advised though that the display will turn off automatically after 10 seconds.

To set the display press the MODE button until 0001 is displayed. The display will now stay on at all times.
0001= LCD display on at all times.
0002= LCD display shuts off after 10 seconds.

Operating Modes:

You can use the Micro Wash WWCW in five ways:

- Sound-Active mode - The unit will react to sound, chasing through the built in programs.
- Macro Mode - There are 19 color temperatures to choose from.
- Auto Mode - There are 8 built in programs to choose from. The Auto mode running speed is adjustable.
- CWWW mode - Control the intensity of the Cool White and Warm White colors. Adjust the intensity to create your own desired color temperature.
- DMX control mode - This function will allow you to control each individual fixtures traits with a standard DMX 512 controller such as as the American DJ® Show Designer™.

Master-Slave Operation:

This function will allows you to link units together to run in a Master-Slave mode. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units built-in programs. Any unit can act as a Master or as a Slave however, only one unit can be programmed to act as the "Master."

Master-Slave Connections and Settings:

1. Daisy chain your units via the XLR connector on the rear of the unit. Use standard XLR microphone cables to link your units together. Remember that the Male XLR connector is the input and the Female XLR connector is the ouput. The first unit in the chain (master) will use the female XLR connector only. The last unit in the chain will use the male XLR connector only.
2. Set the "Master" unit to your desired mode or operation.

3. For the "Slave" unit(s), set the display to 2 Channel DMX mode or 5 Channel DMX mode. The display should read either "1000" or "2000" or any of their variables, i.e "1001, "1002", "2001", "2002 etc..
4. Connect the "Slave" unit or units and they will automatically start to follow the "Master."

Sound Active Mode:

In this mode the Micro Wash WWCW will react to sound, and chase through the different color temperatures.

1. Plug the fixture in and press the MODE button until "3-So" is displayed.
2. The fixture will now change via sound.

Color Temperature Mode:

1. Plug the fixture in and press the MODE button until "4-XX" is displayed.
2. There are 19 preset color temperatures to choose from. Select your desired color temperature by pressing the UP and DOWN buttons. The color temperature chart on the next page will let you know which number corresponds to which preset temperature.

Auto Mode:

1. Plug the fixture in and press the MODE button until "5-XX" is displayed.
2. There are 8 built in programs to choose from. Select your desired program by pressing the UP and DOWN buttons. You can set your program speed by following the instructions below.

Auto Mode Speed Adjustment:

1. To adjust the speed of your Auto mode program press the MODE button until "6-XX" is displayed.
2. Press the UP or DOWN buttons to make the adjustments. "6-01" is the fastest speed, "6-15" the slowest speed. When the display read "6-00" the Auto mode is running by sound activity. Set to your desire.

CW & WW Mode:

1. Plug the fixture in and press the MODE button until:
2. When — XXX is displayed you are in CW (Cool White) dimming mode. Press the UP and DOWN buttons to adjust intensity.
3. When ═ XXX is displayed you are in WW (Warm White) dimming mode. Press the UP and DOWN buttons to adjust intensity.

DMX Mode:

Operating through a DMX controller gives the user the freedom to create their own programs tailored to their own individual needs. This function also allows you to use your fixtures as spot lights. The Micro Wash WWCW has 2 DMX modes: 3 Channel mode and 5 Channel mode. See pages 10-12 for DMX modes and DMX traits.

1. This function will allow you to control each individual fixture's traits with a standard DMX 512 controller.
2. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. Select your desired DMX mode, and then press the UP or DOWN buttons to adjust the DMX address.
3. To run the 3 Channel Mode, press the MODE button until "1XXX" is displayed. "XXX" represents the displayed address. This is the DMX addressing for the 3 Channel Mode. Use the UP or DOWN buttons to adjust the DMX address.
4. To run the 5 Channel Mode, press the MODE button until "2XXX" is displayed. This is the DMX addressing for the 5 Channel Mode.
5. Please see pages 10-12 for DMX values and traits.

Micro Wash WWCW Operating Instructions

This chart is used with the Color Temperature Mode and with DMX Control.

Preset #	Color Temperature	DMX Values	
		Cool White	Warm White
19	9200K	255	2
18	8800K	255	11
17	8300K	255	20
16	7800K	255	30
15	7400K	255	42
14	6800K	255	56
13	6500K	255	72
12	6100K	255	91
11	5800K	255	113
10	5600K	255	138
9	5300K	255	170
8	4850K	255	231
7	4700K	255	255
6	4600K	204	255
5	4400K	161	255
4	4000K	106	255
3	3800K	61	255
2	3600K	35	255
1	3300K	0	255

Micro Wash WWCW 3 Channel - DMX Values & Functions

Channel	Value	Function
1	0 - 255	COOL WHITE (CW) 0% - 100%
2	0 - 255	WARM WHITE (WW) 0% - 100%
3		WHITE PRESETS TEMPERATURES
	0	OFF
	1 - 13	3400K
	14 - 27	3800K
	28 - 41	4000K
	42 - 55	4300K
	56 - 69	4600K
	70 - 83	4800K
	84 - 97	5000K
	98 - 111	5100K
	112 - 125	5400K
	126 - 139	5600K
	140 - 153	5800K
	154 - 167	6000K
	168 - 181	6200K
	182 - 195	6400K
	196 - 209	6600K
	210 - 223	6800K
	224 - 236	7000K
	237 - 248	7200K
	249 - 255	7400K

Micro Wash WWCW 5 Channel - DMX Values & Functions		
Channel	**Value**	**Function**
1		COOL WHITE (CW)
	0 - 255	0% - 100%
2		WARM WHITE (WW)
	0 - 255	0% - 100%
3		COLOR TEMPERATURES
	0	OFF
	1 - 13	3400K
	14 - 27	3800K
	28 - 41	4000K
	42 - 55	4300K
	56 - 69	4600K
	70 - 83	4800K
	84 - 97	5000K
	98 - 111	5100K
	112 - 125	5400K
	126 - 139	5600K
	140 - 153	5800K
	154 - 167	6000K
	168 - 181	6200K
	182 - 195	6400K
	196 - 209	6600K
	210 - 223	6800K
	224 - 236	7000K
	237 - 248	7200K
	249 - 255	7400K
4		STROBING
	0 - 15	NO STROBING
	16 - 255	STROBING SLOW - FAST
5		MASTER DIMMER
	0 - 255	0% - 100%

Micro Wash WWCW Trouble Shooting

Listed below are a few common problems the user may encounter, with solutions.

Unit not responding to DMX:

1. Check that the DMX cables are connected properly and are wired correctly (pin 3 is “hot”; on some other DMX devices pin 2 may be ‘hot’). Also, check that all cables are connected to the right connectors; it does matter which way the inputs and outputs are connected.

Unit does not respond to sound:

1. Quiet or high pitched sounds will not activate the unit.
2. Make sure that you are in Sound Active mode.

Micro Wash WWCW Cleaning

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses must be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Clean the external optics with glass cleaner and a soft cloth every 20 days.
3. Always be sure to dry all parts completely before plugging the unit back in.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew).

MANUFACTURER'S LIMITED WARRANTY

A. American DJ, Inc. hereby warrants, to the original purchaser, American DJ and American Audio products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service you must obtain a Return Authorization number (RA#) before sending back the product. Contact American DJ, Inc. Service Department at 800-322-6337. Send the product only to the American DJ, Inc. factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American DJ, Inc. will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in it's original package. No accessories should be shipped with the product. If any accessories are shipped with the product, American DJ, Inc. shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which American DJ, Inc. concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ, Inc. factory unless prior written authorization was issued to purchaser by American DJ, Inc.; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, American DJ, Inc. will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American DJ, Inc. under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American DJ. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. American DJ, Inc. reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by American DJ, Inc. in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall American DJ, Inc. be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

This warranty is the only written warranty applicable to American DJ and American Audio Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

MANUFACTURER'S LIMITED WARRANTY PERIODS:

• All American Audio Products = 1-year (365 day) Limited Warranty (except V-Plus Series Amplifiers)
• All American Audio V-Plus Series Amplifiers = 3-year (1095 day) Limited Warranty
• American DJ Lighting and American DJ Branded Products = 1-year (365 day) Limited Warranty (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding Laser Products, lamps, and Star Tec Series)
• American DJ Laser Products and Star Tec Products = 90-Day Limited Warranty
• American DJ L.E.D. Products = 2-year (730 day) Limited Warranty (excluding motors which have a 1-year (365 day Limited Warranty)

Model: Micro Wash WWCW

SPECIFICATIONS:

Voltage:	100V~240V/50~60Hz
Power Draw:	15W
LEDs:	7 x 1 Watt LED's (4 Warm White & 3 Cool White)
Beam Angle:	10 Degrees
Weight:	1.6lbs./ 0.74Kgs.
Dimensions:	6.9" (L) x 4" (W) x 2.6" (H) 175 x 101 x 66mm
Colors:	WWCW Color Mixing
DMX Channels:	2 DMX Modes: 3 Channel Mode & 5 Channel Mode
Working Position:	Any safe working position
Warranty:	2 Year (730 days)

Auto Sensing Voltage: *This fixture contains a automatic voltage switch, which will auto sense the voltage when it is plugged into the power source.*

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

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